

# ABSTRACT

An object of the invention is to provide a sealant composition for a plastic liquid crystal display cell that is capable of being applied to a sheet heat press adhesion method and of producing a plastic liquid crystal display cell having high reliability under a high temperature and high humidity environment. A two-component sealant composition for a plastic liquid crystal display cell of the invention contains the following components (1) to (6):

(1) from 15 to 84% by weight of a liquid epoxy resin having from 1.7 to 6 in weight average of epoxy groups in one molecule and an ionic conductivity of an aqueous solution obtained by extraction separation by contact mixing with 10 times by weight of pure water at from 40 to 80°C of 2 mS/m or less,

(2A) from 10 to 50% by weight of a curing agent containing one or a mixture of two or more selected from (2A-1) a tetrafunctional mercapto compound or (2A-2) a modified polymer mercapto derivative, having an ionic conductivity of an aqueous solution obtained by extraction separation by contact mixing with 10 times by weight of pure water at from 40 to 80°C of 0.6 mS/m or less,

(3) from 0.01 to 15% by weight of a curing accelerator,

(4) from 5 to 50% by weight of an inorganic filler,

(5) from 0.1 to 5% by weight of a silane coupling agent, and

(6) from 1 to 25% by weight of rubbery polymer fine particles having a softening temperature of 0°C or less and an average particle diameter of primary particles of from 0.01 to 5  $\mu\text{m}$ .

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A two-component sealant composition for a plastic liquid crystal display cell of the invention contains the following components (1) to (6):

(1) a liquid epoxy resin having from 1.7 to 6 in weight average of epoxy groups in one molecule and an ionic conductivity of an aqueous solution obtained by extraction separation by contact mixing with 10 times by weight of pure water at from 40 to 80°C of 2 mS/m or less,

(2) a curing agent containing one or a mixture of two or more selected from a tetrafunctional mercapto compound, a modified polymercapto derivative, a micro-encapsulated imidazole compound, or a methyl methacrylate adduct of an alicyclic diamine, having an ionic conductivity of an aqueous solution obtained by extraction separation by contact mixing with 10 times by weight of pure water at from 40 to 80°C of 0.6 mS/m or less,

(3) a curing accelerator, (4) an inorganic filler, (5) a silane coupling agent, and (6) rubbery polymer fine particles having a softening temperature of 0°C or less and an average particle diameter of primary particles of from 0.01 to 5  $\mu\text{m}$ .